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ABSTRACT

Sixty children in first, third, and sixth grades at one K-6 elementary school took part in a study of: (1) their awareness of the consequences of positive and negative interpersonal interactions; and (2) their awareness of the consequences of interpersonal interactions across intrapersonal dimensions such as motivation, performance, and interpersonal relationships. Subjects were interviewed regarding the education and life consequences of four types of interpersonal interactions: (1) positive adult-child interaction; (2) negative adult-child interaction; (3) positive child-child interaction; and (4) negative child-child interaction. The results of this study indicate that children are aware of the consequences of positive and negative interpersonal interactions. Children are also aware of the stability of the consequences across intrapersonal dimensions, time, and interpersonal subtypes. Findings support the supposition that children have the requisite awareness for understanding the unmitigated consequences of interpersonal behavior, a matter that is important for self-regulatory behavior. (DR)

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# Children's Awareness of the Educational and Life Consequences of Interpersonal Interactions

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Running Head: INTERPERSONAL INTERACTIONS

Abstract

The purpose of this study was to investigate whether children are aware: (a) of the consequences of positive and negative interpersonal interactions; and (b) that the consequences of these interpersonal interactions are stable across intrapersonal dimensions (motivation, performance, and interpersonal adjustment), time (childhood to adulthood), and interpersonal interaction subtypes (adult-child and child-child). Sixty elementary-aged children were interviewed regarding the education and life consequences of four types of interpersonal interactions: (a) positive adult-child interaction, (b) negative adult-child interaction, (c) positive child-child interaction, and (d) negative child-child interaction. The results of this study indicate that children are aware of the consequences of positive and negative interpersonal interactions. And, children are aware of the stability of the consequences across intrapersonal dimensions, time, and interpersonal subtypes. These findings support the supposition that children have the requisite awareness for understanding the unmitigated consequences of interpersonal behavior, a matter that is important for self-regulatory behavior. Future research needs are discussed.

Children's Awareness of the

Educational and Life Consequences of Interpersonal Interactions

Aggression or violence threatens every Amercian neighborhood, every American home. Approximately one in three persons will be a victim of violent crime in their life time (Langan & Innes, 1985). Paralleling this trend, problem behavior or externalizing behavior (also referred to as antisocial behavior, challenging behavior, defiance, noncompliance, aggressive behavior, acting-out behavior, conduct disorder, etc.) has become one of the most immediate concerns in schools (Bullock, Reilly, & Donahue, 1983; Evans & Evans, 1985; Hranitz & Eddowes, 1990). The National Center for School Safety reports that 28,200 students and 5,200 teachers are physically attacked in schools each month (Greenbaum & Turner, 1989). Further, students and teachers are concerned for their safety at school. Approximately 8% of junior and senior high school students report missing school out of fear of the conflict and aggression occurring in the classroom (Hranitz & Eddowes, 1990). These staggering statistics do not include violent acts committed by juveniles off school premises. Between 1987 and 1991, the number of juveniles arrested for murder increased by over 85%. In 1990 alone, one-third of all murders were committed by juveniles (Moseley-Braun, 1993). These numbers alone indicate the need to study children's awareness of the consequences of interpersonal interactions.

Although there appears to be no previous research that has directly considered this question, this study can be placed within work conducted on children's social reasoning. Building on the work of Piaget (1970, 1972), researchers have explored children's distinctions of different domains of social reasoning (Turiel, 1983) and intellectual reasoning (Nicholls & Nelson, 1992). Within the social domain, a number of studies

have demonstrated that children make distinctions between concepts of morality and social conventions (Much & Shweder, 1978; Nucci & Nucci, 1982; Nucci & Turiel, 1978; Nucci, Turiel, & Encarnacion-Gawrych, 1983; Turiel, 1983). Moral concepts pertain to issues of welfare, justice, and rights (e.g., equitable distribution of resources), whereas, conventions are socially acceptable behaviors that regulate social interactions (e.g., modes of greeting). Children judge actions within the moral domain to be independent of existing rules (e.g., stealing would be wrong even if a rule prohibiting stealing did not exist). Conversely, children judge actions within the social convention domain to be contingent on rules (e.g., wearing a uniform to school should depend on a specific school rule) (Nucci, 1981; Nucci & Turiel, 1978; Turiel, 1978; Weston & Turiel, 1980).

This framework has been delineated further by exploring children's understanding of the critical dimensions of uncontested and contested social and intellectual domains of knowledge (e.g., Nicholls and Nelson, 1992; Turiel, 1983). Uncontested knowledge includes those social (e.g., modes of greeting or the gratuitous killing of someone) and intellectual (e.g., the effects of gravity) matters with which there is general agreement or one established position. Uncontested matters are impersonal (they are not based on individual preferences or inclinations) and are applied universally (they apply to everyone in similar circumstances) (Nucci & Turiel, 1978; Turiel, 1979). Contested knowledge, on the other hand, includes those social (e.g., governmental spending priorities) and intellectual matters (e.g., whether there is life in space) where there is disagreement or no one established position. Contested matters can vary from one social system to another, can be altered by consensus within a social system (Nicholls & Nelson, 1992), and are personal (they can be based on individual preferences or inclinations).

Research on children's understanding of uncontested and contested matters indicate that children's conceptions and assessments of critical dimensions tend to be adult-like (e.g., Nicholls & Nelson, 1992). And they tend to be stable across ages. For example, in studies of uncontested questions of social convention and morality (e.g., Nucci & Nucci, 1982; Smetana, 1981; Turiel, 1983), children clearly see the questions of convention as more likely to vary over time and across countries and to be legitimately altered by social consensus than would questions of morality. Also there was little variation in children's distinctions across ages. Individuals ranging from 3 to 4 years of age through adolescence made similar distinctions among these matters (Turiel, 1989).

Although researchers have demonstrated that children make distinctions between contexts and domains of social interactions, children's awareness of the consequences of interpersonal interactions germane to school settings have not been assessed. The purpose of this study was to investigate whether children are aware: (a) of the consequences of positive and negative interpersonal interactions; and (b) that the consequences of these interpersonal interactions are stable across intrapersonal dimensions (motivation, performance, and interpersonal adjustment), time (childhood to adulthood), and interpersonal interaction subtypes (adult-child and child-child). Specifically, a comparative analysis was conducted across four types of interpersonal interactions: (a) positive adult-child interaction; (b) negative adult-child interaction; (c) positive child-child interaction; and (d) negative child-child interaction.

This work is important because the basis of self-regulated behavior centers on an individual's awareness of their actions and the consequences of those actions. For instance, interpersonal cognitive problem-solving skills, critical for adaptation and adjustment, consist of a person's ability to generate and choose an alternative after the

consequences of alternative courses of action have been evaluated (Spivack & Shure, 1974, 1982, 1985). Further, children's ability to predict future outcomes as a result of current actions is crucial for understanding the unmitigated consequences of behavior. This understanding is integral for making behavioral decisions regarding whether to initiate positive or negative interpersonal interactions, and whether to respond, and in what manner, to negative interactions.

If children are aware of the consequences of positive and negative interpersonal interactions and of their stability across intrapersonal dimensions, time, and interpersonal interaction subtypes, their responses should vary according to the following predictions. Research shows that individuals with poor interpersonal relationships generally experience difficulty in life (Blumstein, Cohen, Roth, & Visher, 1986; Farrington, 1983; Robins, 1981). Children with problematic interpersonal behaviors experience diminished motivation (Berston, 1960; Elliot & Voss, 1974; Liddle, 1962; Sando, 1952; Snepp, 1953), performance difficulties (Elliot & Voss, 1974); and interpersonal maladjustment (Asher, Oden, & Gottman, 1977; French, 1988; Ladd, 1983). For example, dropout rates for these children range from 30% to 54% (Barclay, 1966; Kupersmidt, 1983), academic performance is inadequate (Elliot & Voss, 1974), and juvenile and adult delinquency is 150% more likely (Roff, 1975; Roff et al., 1972). Thus, poor interpersonal relations result in a relatively consistent pattern of negative childhood and adolescent motivation, performance, and interpersonal outcomes. If children are aware of this, they should know that there will be negative consequences for negative interpersonal interactions and positive consequences for positive interpersonal interactions across all interpersonal dimensions.

Much literature points to the stability of problem behavior from early childhood (approximately age 8) to late adolescence and adulthood (e.g., Blumstein, Cohen, Roth, & Visher, 1986; Farrington, 1983). Further, there has been a plethora of research conducted on children with social problems, and the adverse affects on long-term adjustment (Cowen, Pederson, Babijian, Izzo, & Trost, 1973; Kupersmidt, Coie, & Dodge, 1990; Morison & Matson, 1991; Parker & Asher, 1987; Roff, Sells, & Golden, 1972). As adults, children who had negative interpersonal relationships were characterized, for example, by more arrests, marginal employment records, frequent heavy drinking, stormy marriages, and psychiatric problems (Caspi, Bem, & Elder, 1980; Cowen et al., 1973; Robins, 1966; Roff, 1975; Wagner, 1992). If children are aware of the stability of problem behavior, they should also perceive that the consequences of interpersonal relations in childhood will parallel life outcomes across all intrapersonal dimensions.

Although researchers have not delineated between types of interpersonal interactions that underlie school contexts such as conduct disorder, defiance, acting-out behavior, and noncompliance, they have shown that negative interpersonal behavior is stable across settings (Loeber & Dishion, 1984; Mitchell & Rosa, 1981; Patterson, 1979, 1982; Wright, 1983). For example, Loeber and Dishion (1984) found that children with high rates of negative interpersonal relations at school also show high rates of negative interaction at home. Thus, one might assume that children presumably see that outcomes are stable between adult and peer interactions.

Children's ability to distinguish between dimensions and contexts is influenced by their familiarity with the issues, the perceived jurisdiction of rules and particular authorities, and the perceived role of the issue within a social context (e.g., school,

family, work) (Turiel, 1989). These distinctions are more limited to familiar issues for younger than older children (Davidson, Turiel, & Black, 1983). Because children are quite familiar with the issue of positive and negative interpersonal interactions, school rules and authorities, and the social context of school, and because of the basis of age- and gender-stable results cited previously (Nicholls & Nelson, 1992; Nucci & Nucci, 1982; Turiel, 1983; Turiel, 1989), we predict that there will be little variation in children's awareness across the ages and gender.

## Method

### Subjects

Sixty children in the first, third, and sixth grades at one elementary school (K-6) served as the primary subjects in the study. Ten boys and ten girls at the first and third grades, and 9 girls and 11 boys at the sixth grade were randomly selected from all children at the elementary school. The mean ages of the first-, third-, and sixth-grade children were 6.35 (SD = .48), 8.45 (SD = .60) and 11.30 (SD = .47), respectively.

### Interview

The children were interviewed individually by the first author. The interviews lasted approximately 20 minutes. The rationale given to the children orally was that the interview would be helpful for teachers and for people who are learning to be teachers. Experienced teachers and those studying to be teachers could learn more about what children think would happen to the children who get along with their teacher and friends, and those who do not.

The structured interview consisted of four types of interpersonal interactions: (a) positive adult-child interaction; (b) negative adult-child interaction; (c) positive child-child interaction; and (d) negative child-child interaction. The interview protocol was

counterbalanced by alternating the order in which each type of interpersonal interaction (e.g., positive, negative, adult, or child) was presented. Children were shown pictures depicting each type of interaction accompanied with a description, by the interviewer, until the specific interaction was fully understood. Subjects were then asked to think about a student who does things like the person in the picture and what that student might be like.

Subjects were then asked 8 questions under the educational consequences and 8 parallel questions under the life consequences of interpersonal behavior across three intrapersonal dimensions: motivation (questions 7, 8), performance (questions 2, 4), and interpersonal adjustment (questions 1, 3, 5, 6). The stems "Would they be the sort of student who would...?" for the educational consequences and "Would they grow up to be the sort of person who would ...?" for the life consequences were used. The interview questions for the educational consequences were as follows:

1. ...help their classmates to understand things in school?
2. ...get good grades in school?
3. ...get along with their teacher?
4. ...do everything their teacher says to do?
5. ...have a lot of friends at school?
6. ...help other students with their school work?
7. ...get their school work done on time?
8. ...try hard to understand school things?

The parallel questions for the life consequences were as follows:

1. ...help others to understand things in work?
2. ...get awards for doing their job well?

3. ...have a lot of friends at work?
4. ...do everything their boss says to do?
5. ...get along with their boss?
6. ...help others do their work?
7. ...get their work done on time?
8. ...try hard to understand work things?

Children indicated the extent to which they agreed or disagreed with the questions on a 5-point Likert type scale (i.e., (1) big **NO**, indicating strong disagreement; (2) little no, indicating disagreement; (3) ?, indicating uncertainty ; (4) little yes, indicating agreement; and (5) big **YES**, indicating strong agreement). Children indicated their response by pointing to the response on the Likert scale or by replying (e.g., "big yes").

## Results

Responses to each question were analyzed with analyses of variance (ANOVAs) by Gender (female and male), by Grade (1, 3, and 6), by Type (interpersonal transaction type), with the latter factor being a repeated within-subject factor. A significant main effect for Type was obtained for every question. A significant main effect for Grade was obtained for 2 of the 16 questions, and a significant Grade x Type interaction effect was attained for 1 question (see Table 1). There were no other significant main or interaction effects. Post hoc tests were computed when appropriate. Table 1 presents the mean responses for each question by interpersonal transaction type and associated $F$ values.

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Insert Table 1 About Here

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To determine whether children were significantly resolute rather than indecisive or neutral about the consequences of the interpersonal interactions, the 95% confidence

interval for each mean was computed to determine whether it encompassed the midpoint of the scale. (A score of (1) big **NO**, indicating strong disagreement; (3) **?**, indicating uncertainty; and (5) big **YES**, indicating strong agreement.) Those means in which the midpoint of the response deviated from their 95% confidence interval are underlined in Table 1.

Awareness of the Consequences of Positive and Negative Interpersonal Interactions

One purpose of this study was to assess children's general awareness of the consequences of positive and negative interpersonal interactions. Inspection of Table 1 reveals that children are clearly aware of the childhood and adulthood consequences of positive and negative interactions. There were significant main effects for interpersonal transaction type for all questions. Children were likely to indicate that there would be positive consequences for students who exhibited positive adult-child and child-child interpersonal interactions. Whereas children were likely to indicate that there would be negative consequences for students who exhibited negative adult-child and child-child interpersonal interactions. That is, on all questions, the mean score for positive adult-child interactions differed significantly from the mean score for negative adult-child interactions and the mean score for positive child-child interactions differed significantly from the mean score for negative child-child interactions. Thus, children clearly are aware that positive interpersonal interactions result in positive childhood and adulthood consequences, and negative interactions result in negative childhood and adulthood consequences.

Awareness of the Stability of Consequences

Another purpose of the study was to determine whether children distinguish the stability of the consequences of interpersonal interactions across intrapersonal dimensions

(e.g., motivation, performance, and interpersonal adjustment), time (childhood to adulthood), and interpersonal interaction subtypes (adult and peer). (Recall that motivation was measured by Questions 7 and 8; performance was measured by Questions 2 and 4; and interpersonal adjustment was measured by Questions 1, 3, 5, and 6.) The results of this study reveal that children discern similar consequences across all intrapersonal dimensions of interpersonal interactions. Children perceived similar childhood and adulthood consequences across motivation, performance, and interpersonal adjustment for each of the four types of interpersonal interactions. Children were, however, uncertain of the consequences of positive and negative child-child interpersonal interactions on motivation in adulthood. They were also uncertain about their position regarding the consequences of these interpersonal interactions on intrapersonal adjustment (see Table 1). Children were uncertain that students who had positive and negative child-child interactions would "get along with their boss" and "would help others at work." Whereas they were certain that such students would "help others understand things at work" and "have a lot of friends at work."

Consistent with children's awareness of the stability of the consequences of interpersonal interactions across intrapersonal dimensions, children perceived that the consequences would be stable over time. Inspection of Table 1 reveals that children were aware that the positive educational consequences of positive interpersonal interactions would persist in adulthood. Further, they were aware that the negative consequences of negative interpersonal interactions would persist in adulthood.

Whether children discern similar educational and life consequences for adult-child and child-child interpersonal interactions was another focus of this study. Generally children made relatively stable predictions between adult-child and child-child subtypes.

Children clearly perceived that adult-child and child-child positive and negative interpersonal interactions resulted in like consequences. This was principally evident for positive interpersonal interactions. Children clearly perceived that positive adult-child and child-child interpersonal interactions result in similar educational and life consequences. Recall, however, that children were uncertain of the consequences of positive and negative child-child interpersonal interactions on motivation in adulthood. They were also uncertain about their position regarding the consequences of these interpersonal interactions on intrapersonal adjustment.

In the case of negative interpersonal interactions, close inspection of Table 1 reveals that children generally indicated that the consequences of adult-child interpersonal interactions would be more severe than for child-child interactions on 6 of the 8 propositions. For example, children were significantly more likely to indicate that students who had negative adult-child interactions would be less likely to "get good grades" than students who had negative child-child interactions. The tendency to see differential outcomes for adult-child and child-child negative interpersonal interactions was not as strong in the case of the life consequences of negative interpersonal interactions. Children were less likely to indicate that a student who had negative adult-child interpersonal interactions would "get along with their boss," "help others at work," and "try hard to understand things" than a student who had negative child-child interpersonal interactions.

Overall, the tendency to see differential outcomes for adult-child and child-child interpersonal interactions was not as strong in the case of positive ones. Children indicated that students who had positive adult-child interpersonal interactions would have more positive educational consequences than students who had positive child-child

interactions on 3 of the 8 propositions, and would have more positive life consequences on only one matter. Children perceived that students who had positive adult-child interactions would be more likely to "do everything the teacher says," "get work done on time," and "try hard to understand things" as well as "help others with their work (life outcomes)" than those children who had positive child-child interpersonal interactions.

Changes in Children's Awareness Across the Grades

Across the 16 questions, there were significant main effects for grade on three questions "get good grades," "get school work done on time,",and "get along with their boss." There was a significant Grade X Type interaction effect on only one question "get along with their boss." Post hoc analyses of these main and interaction effects did not reveal meaningful patterns. For this reason these results are not detailed.

## Discussion

Poor interpersonal relationships generally result in a relatively consistent pattern of negative motivation, performance, and interpersonal outcomes (Blumstein, Cohen, Roth, & Visher, 1986; Farrington, 1983; Robins, 1981). For example, the dropout rates for these individuals range from 30% to 54% (Barclay, 1966; Kupersmidt, 1983); academic performance is inadequate (Elliot & Voss, 1974); and juvenile and adult delinquency is 150% more likely (Roff, 1975; Roff et al., 1972). The purpose of this study was to ascertain whether children are aware of the consequences of positive and negative interpersonal interactions. Another purpose of this study was to determine whether children are aware of the stability of the consequences of these interactions across intrapersonal dimensions (motivation, performance, and interpersonal adjustment), time (childhood to adulthood), and interpersonal interaction subtypes (adult-child and

child-child). This work was conducted because little is known about children's awareness of the consequences of interpersonal interactions.

The first finding we would like to highlight centers on children's awareness of the differential consequence of positive and negative interpersonal interactions. Children in this study were able to differentiate between positive and negative interpersonal interactions. They clearly discerned that negative interpersonal interactions result in negative outcomes, and positive interactions result in positive outcomes. Children's responses were consistent with research indicating that individuals with poor interpersonal relationships experience negative educational and life outcomes (Blumstein, Cohen, Roth & Visher, 1986; Farrington, 1983; Robins, 1981). This finding suggests that children's awareness of the differential consequences of interpersonal behavior is very accurate. Converging evidence for this conclusion comes from research indicating that children's conceptions and assessments of social issues tend to be adult-like (Nicholls & Nelson, 1992; Nucci & Nucci, 1982; Turiel, 1983; Turiel, 1989).

Additional findings that we would like to highlight concern children's awareness of the stability of the consequences associated with positive and negative interpersonal interactions. Research has shown that children with negative interpersonal relations experience problems across a wide variety of intrapersonal dimensions (Asher, Oden, & Gottman, 1977; Elliot & Voss, 1974), and that the problems persist into adulthood (Cowen et al., 1973; Kupersmidt, Coie, & Dodge, 1990; Morison & Matson, 1991; Parker & Asher, 1987; Roff, Sells, & Golden, 1972). The results of this study suggest that children see that the consequences of positive and negative interpersonal interaction are stable across intrapersonal dimensions (motivation, performance, and interpersonal adjustment).

Research on children's understanding of social matters suggests that children see these matters as being unchangeable over time (Nucci & Nucci, 1982; Smetana, 1981; Turiel, 1983). Our finding that children are aware that the consequences of interpersonal interactions persist into adulthood support this conclusion. Further, although children tended to see that consequences of interpersonal interactions persist into adulthood, they were less certain about the extent of the later life outcomes. Two respective explanations of these mixed results are offered. Children may have focused on the specific context within which the interaction occurs. Thus, although children ascertain that the consequences of interpersonal interactions are generally stable, children are less certain about the degree of that stability given only one "early life" context within which to make judgments. These findings are in accordance with earlier research which demonstrates that although children have consistent explanations about peoples' actions, children emphasize situational contexts for making predictions about how people would act in similar situations (Turiel, 1989). Another explanation is that children may not necessarily be less certain about the life consequences of interpersonal interactions, but rather they are less committed to making long-term declarations. Further work is needed to fully explicate children's understanding of the long-term consequences of interpersonal behavior.

Problems associated with negative interpersonal interactions have been found to be stable across settings (Loeber & Dishion, 1984; Mitchell & Rosa, 1981; Patterson, 1979, 1982; Wright, 1983). Children interviewed in this study generally see that consequences of interpersonal interactions are consistent for postive and negative interpersonal interactions. Children, however, indicated that there would be some differential consequences across the interpersonal interaction subtypes. Children believed

that students who had negative adult-child interpersonal interactions would be more likely to experience negative educational consequences than students who had negative child-child interpersonal interactions. This trend was not as strong in the case of the life consequences (adult). In the case of positive interpersonal interactions, children's responses did not tend to differ across adult and child subtypes.

One might elucidate that children would perceive similar educational outcomes of positive adult-student and student interactions, but would not necessarily perceive similar educational outcomes of negative interactions for several reasons. Research shows that children who are more emotionally secure with their teachers are also more competent in their relationships with peers (Howes, Phillips, & Whitebook, 1992; LaFreniere & Sroufe, 1985; Oppenheim, Sagi, & Lamb, 1988). Consonant with this research, children would see similar outcomes for positive adult and peer interactions. Conversely, research on conduct disorders indicates that children who have negative adult interactions (conduct disorders) do not necessarily have negative interpersonal (peer) interactions (Bierman, 1986; Coie, Belding, & Underwood, 1988; Olweus, 1977). In line with this research, children see more favorable outcomes of negative child-child interactions than adult-child interactions. This would be in contrast to our findings. Further research is needed to more fully comprehend how children's judgments about interpersonal interactions are influenced by specific settings.

The results of this study show that children' responses generally do not vary with age. Main effects for grade were obtained on two questions and a Grade by Type interaction effect was obtained on only one question. These findings are consistent with earlier research in which children's distinctions do not vary significantly with age, rather older children tend to distinguish dimensions more consistently or comprehensively than

younger children (Nicholls & Nelson, 1992; Nucci & Nucci, 1982; Turiel, 1983; Turiel, 1989). Although we did not find grade effects we might suspect to find more significant grade effects when we ask children about their reasoning regarding negative and positive interpersonal interactions (Hollos, Leis, & Turiel, 1986; Smetana, 1981; Tisak & Turiel, 1988).

Finally, overall, the results of this study demonstrate convincingly that children are aware of the consequences of positive and negative interpersonal interactions, and they discern the educational and life consequences of those interactions to be relatively stable across intrapersonal dimensions and time. These findings are consistent with research conducted on children's reasoning of uncontested moral matters (Nucci & Turiel, 1978; Turiel, 1979). Children see the questions of morality as unalterable, applied universally, and stable over time and across countries. This research is important because it establishes that children typically have the requisite awareness for understanding the unmitigated consequences of interpersonal interactions, a matter that is important for self-regulatory behavior. Further comparative research should be conducted to explore whether children with behavior problems and emotional distrubances are aware of the consequences of interpersonal interactions. The results might provide valuable information regarding what effect awareness plays in self-regulated behavior.

References

Asher, S. R., Oden, S. L., & Gottman, J. M. (1977). Children's friendship in school settings. In L. G. Katz (Ed.), Current topics in early childhood education (Vol. 1) (pp. 32-61). Norwood, NJ: Ablex.

Barclay, J. R. (1966). Sociometric choices and teacher ratings as predictors of school dropout. Journal of Social Psychology, 4, 40-45.

Berston, H. M. (1960). The school dropout problem. Clearing House, 35, 207-210.

Bierman, K. L. (1986). The relationship between social aggression and peer rejection in middle childhood. In R. Prinz (Ed.), Advances in behavioral assessment of children and families (Vol. 2), (pp. 151-178). Greenwich, CT: JAI.

Blumstein, A., Cohen, J., Roth, J. A., & Visher, C. A. (Eds.). (1986). Criminal careers and career criminals (Vols. I and II). Washington, DC: National Academic Press.

Bullock, L. M., Reilly, T. F., & Donahue, C. A. (1983). School violence and what teachers can do about it. Contemporary Education, 55, 40-44.

Caspi, A., Bem, D. J., & Elder, G. H. Jr. (1980). Continuities and consequences of interactional styles across the life course. Journal of Personality, 57, 375-406.

Coie, J. D., Belding, M., & Underwood M. (1988). Aggression and peer rejection in childhood. In B. B. Lahey & A. E. Kazdin (Eds.), Advances in clinical child psychology (Vol. 11). New York: Plenum.

Cowen, E. L, Pederson, A., Babijian, H., Izzo, L. D., & Trost, M. A. (1973). Long-term follow-up of early detected vulnerable children. Journal of Consulting and Clinical Psychology, 41, 438-446.

Davidson, P., Turiel, E., & Black, A. (1983). The effect of stimulus familiarity on the use of criteria and justifications in children's social reasoning. British Journal of Developmental Psychology, 1, 49-65.

Elliot, D. S., & Voss, H. L. (1974). Delinquency and dropout. Lexington, MA: Lexington Books.

Evans, W. H., & Evans, S. S. (1985). The assessment of school violence. Pointer, 29(2), 18-21.

Farrington, D. P. (1983). Offending from 10 to 25 years of age. In K. T. Van Dusen & S. A. Mednick (Eds.), Prospective studies of crime and delinquency (pp. 17-37). Boston: Kluwer-Nijhoff.

French, D. C. (1988). Heterogeneity of peer-rejected boys: Aggressive and nonaggressive subtypes. Child Development, 59, 976-985.

Greenbaum, S., & Turner, B. (Eds.). (1989). Safe schools overview: NSSC resource paper. Malibu, CA: U.S. Department of Justice, U.S. Department of Education and Pepperdine University.

Hollos, M., Leis, P. E., & Turiel, E. (1986). Social reasoning in Ijo children and adolescents in Nigerian communities. Journal of Cross Cultural Psychology, 17, 352-374.

Howes, C., Phillips, D. A., & Whitebrook, M. (1992). Thresholds of quality: Implications for the social development of children in center-based child care. Child Development, 63, 449-460.

Hranitz, J. R., & Eddowes, E. A. (1990). Violence: A crisis in homes and schools. Childhood Education, 67, 4-7.

Kupersmidt, J. B. (1983). Predicting delinquency and academic problems from childhood peer status. In J. D. Coie (Chair), Strategies for identifying children at social risk: Longitudinal correlates and consequences. Symposium conducted at the biennial meeting of the Society for Research in Child Development, Detroit.

Kupersmidt, J. B., Coie, J. D., & Dodge, K. A. (1990). The role of poor relationships on the development of disorder. In S. R. Asher & J. D. Coie (Eds.), Peer rejection in childhood (pp. 274-305). Cambridge: Cambridge University Press.

Ladd, G. (1983). Social networks of popular, average, and rejected children in school settings. Merrill-Palmer Quarterly, 29, 282-307.

LaFreniere, P., & Sroufe, L. A. (1985). Profiles of peer competence in preschool: Interrelations between measures, influences at social ecology, and relation to attachment theory. Developmental Psychology, 21, 56-69.

Langan, P. A., & Innes, C. A. (1985). The risk of violent crime (Bureau of Justice Statistics Special Report, NCJ-97119). Washington, DC: U.S. Government Printing Office.

Liddle, G. P. (1962). Psychological factors involved in dropping out of school. High School Journal, 45, 276-280.

Loeber, R., & Dishion, T. J. (1984). Boys who fight at home and school: Family conditions influencing cross-setting consistency. Journal of Consulting and Clinical Psychology, 52, 759-768.

Mitchell, S., & Rosa, P. (1981). Boyhood behavior problems as precursors of criminality: A fifteen-year follow-up study. Journal of Child Psychology and Psychiatry, 22, 19-33.

Morison, P., & Matson, A. S. (1991). Peer reputation in middle childhood as a predictor of adaptation to adolescence: A seven-year follow-up. Child Development, 62, 991-1007.

Moseley-Braun, C. (1993, November 9). Violent Crime Control and Law Enforcement Act of 1993. Congressional Record, p. S15411-15463.

Much, N. C., & Shweder, R. A. (1978). Speaking of rules: The analysis of culture in the breach. In W. Damon (Ed.), New directions for child development: Moral development (pp. 19-39). San Francisco: Jossey-Bass.

Nicholls, J. G., & Nelson, J. R. (1992). Students' conceptions of controversial matters and noncontroversial matters. Journal of Educational Psychology, 84, 224-230.

Nucci, L. (1981). The development of personal concepts: A domain distinct from moral and societal concepts. Child Development, 52, 114-121.

Nucci, L. P, & Nucci, M. S. (1982). Children's social interactions in the context of moral and conventional transgressions. Child Development, 53, 403-412.

Nucci, L. P., & Turiel, E. (1978). Social interactions and the development of social concepts in preschool children. Child Development, 49, 400-407.

Nucci, L. P, Turiel, E., & Encarnacion-Gawrych, G. E. (1983). Children's social interactions and social concepts: Analyses of morality and convention in the Virgin Islands. Journal of Cross-Cultural Psychology, 14, 469-487.

Olweus, D. (1977). Aggression and peer acceptance in adolescent boys: Two short-term longitudinal studies of ratings. Child Development, 48, 1301-1313.

Oppenheim, D., Sagi, A., & Lamb, M. (1988). Infant-adult attachments on the kibbutz and their relation to socio-emotional development four years later. Developmental Psychology, 24, 427-433.

Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? Psychological Bulletin, 102, 357-389.

Patterson, G. R. (1979). A performance theory for coercive family interaction. In R. B. Cairns (Ed.), The analysis of social interactions: Methods, issues, and illustrations (pp. 119-162). Hillsdale, NJ: Erlbaum Associates.

Patterson, G. R. (1982). A social learning approach, Vol. 3: Coercive family process. Eugene, OR: Castalia Publishing.

Piaget, J. (1970). Psychology and epistemology. New York: Viking Press.

Piaget, J. (1972). The principles of genetic epistemology. London: Routledge & Kegan Paul.

Robins, L. N. (1966). Deviant children grown up: A sociological and psychiatric study of sociopathic personality. Baltimore, MD: Williams & Wilkins.

Robins, L. (1981). Epidemiological approaches to natural history research: Antisocial disorders in children. Journal of the American Academy of Child Psychiatry, 20, 556-580.

Roff, M. (1975). Juvenile delinquency in girls: A study of a recent sample. In R. D. Wirt, G. Winokur, & M. Roff (Eds.), Life history of research in psychopathology (Vol. 4) (pp. 135-151). Minneapolis: University of Minnesota Press.

Roff, M., Sells, S., & Golden, M. M. (1972). Social adjustment and personality development in children. Minneapolis: University of Minnesota Press.

Sando, R. F. (1952). How to make and utilize follow-up studies of school leavers. Bulletin of the National Association of Secondary School Principals, 36, 67-75.

Smetana, J. (1981). Preschool children's conceptions of moral and social rules. Child Development, 52, 1333-1336.

Snepp, D. W. (1953). Why they drop out: 8 clues to greater holding power. Clearing House, 27, 492-497.

Spivack, G., & Shure, M. B. (1974). Social adjustment of young children: A cognitive approach to solving real-life problems. San Francisco: Jossey-Bass.

Spivack, G., & Shure, M. B. (1982). Interpersonal cognitive problem solving and clinical theory. In B. Lahey & A. E. Kazdin (Eds.), Advances in clinical child psychology (Vol. 5), (pp. 323-372). New York: Plenum.

Spivack, G., & Shure, M. B. (1985). ICPS and beyond: Centripetal and centrifugal forces. American Journal of Community Psychology, 13, 226-243.

Tisak, M. S., & Turiel, E. (1988). Variation in seriousness of transgressions and children's moral and conventional concepts. Developmental Psychology, 24, 352-357.

Turiel, E. (1978). Social regulations and domains of social concepts. In W. Damon (Ed.), New directions for child development: Social cognition (Vol. 1), (pp. 45-74). San Francisco: Jossey-Bass.

Turiel, E. (1979). Distinct conceptual and developmental domains: Social convention and morality. In H. E. Howe & C. B. Keasey (Eds.), Nebraska Symposium on Motivation, 1977: Social cognitive development (Vol. 25), (pp. 76-84). Lincoln: University of Nebraska Press.

Turiel, E. (1983). The development of social knowledge: Morality and convention. Cambridge: Cambridge University Press.

Turiel, E. (1989). Domain-specific social judgments and domain ambiguities. Merrill-Palmer Quarterly, 35, 89-114.

Wagner, M. (1992). Long-term outcomes of transition. Reported in Grants and Contracts Weekly.

Weston, D., & Turiel, E. (1980). Act-rule relations: Children's concepts of social rules. Developmental Psychology, 16, 417-424.

Wright, J. C. (1983). The structure and perception of behavioral consistency. Unpublished doctoral dissertation. Stanford University, California.

Table 1:

Mean Response to Questions by Interpersonal Interaction Type

| | Interaction Type | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Adult | | | | Student | | | | |
| | Positive (a) | | Negative (b) | | Positive (c) | | Negative (d) | | |
| Question | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Type F (3, 162) |
| Educational Consequences | | | | | | | | | |
| 1. ...help classmates understand? | $4.58_{bd}$ | 0.72 | $1.40_{acd}$ | 0.83 | $4.75_{bd}$ | 0.57 | $1.88_{abc}$ | 1.06 | 287.62*** |
| 2. ...get good grades? | $4.48_{bd}$ | 0.79 | $1.95_{acd}$ | 1.03 | $4.55_{bd}$ | 0.65 | $2.63_{abc}$ | 1.21 | 116.28*** |
| 3. ...get along with teacher? | $4.73_{bd}$ | 0.55 | $1.77_{acd}$ | 1.06 | $4.62_{bd}$ | 0.69 | $2.67_{abc}$ | 2.67 | 119.39*** |
| 4. ...do everything teacher says? | $4.57_{bcd}$ | 0.70 | $1.88_{acd}$ | 1.04 | $4.02_{abd}$ | 1.05 | $2.22_{abc}$ | 1.04 | 124.37*** |
| 5. ...have a lot of friends? | $4.48_{bd}$ | 0.70 | $2.47_{ac}$ | 1.21 | $4.72_{bd}$ | 0.58 | $2.37_{ac}$ | 1.33 | 111.09*** |
| 6. ...help students w/ classwork? | $4.38_{bd}$ | 0.94 | $1.78_{acd}$ | 1.06 | $4.42_{bd}$ | 0.96 | $2.20_{abc}$ | 1.29 | 167.65*** |
| 7. ...get work done on time? | $4.53_{bcd}$ | 0.77 | $2.05_{acd}$ | 1.17 | $4.13_{abd}$ | 0.98 | $2.48_{abc}$ | 1.30 | 81.66*** |
| 8. ...try hard to understand things? | $4.63_{bcd}$ | 0.61 | $2.37_{ac}$ | 1.28 | $4.32_{abd}$ | 1.02 | $2.63_{ac}$ | 1.25 | 74.07*** |

Table 1 (continued)

Life Consequences

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1. ...help others to understand things? | $\underline{4.47}_{bd}$ | 0.75 | $\underline{2.43}_{ac}$ | 1.27 | $\underline{4.53}_{bd}$ | 0.72 | $\underline{2.47}_{ac}$ | 1.27 | 93.50*** |
| 2. ...get awards for doing job well? | $\underline{4.23}_{bd}$ | 1.11 | $\underline{2.45}_{ac}$ | 1.40 | $\underline{4.40}_{bd}$ | 0.81 | $\underline{2.55}_{ac}$ | 1.32 | 62.98*** |
| 3. ...have a lot of friends at work? | $\underline{4.52}_{bd}$ | 0.79 | $\underline{2.67}_{ac}$ | 1.27 | $\underline{4.52}_{bd}$ | 0.70 | $2.77_{ac}$ | 1.36 | 62.95*** |
| 4. ...do everything boss says to do? | $\underline{4.30}_{bd}$ | 0.93 | $\underline{2.43}_{ac}$ | 1.24 | $\underline{4.40}_{bd}$ | 0.85 | $\underline{2.60}_{ac}$ | 1.33 | 64.89*** |
| 5. ...get along with their boss? | $\underline{4.37}_{bd}$ | 0.82 | $\underline{2.35}_{acd}$ | 1.27 | $\underline{4.48}_{bd}$ | 0.79 | $2.77_{abc}$ | 1.33 | 81.16*** |
| 6. ...help others with their work? | $\underline{4.57}_{bcd}$ | 0.74 | $\underline{2.28}_{acd}$ | 1.28 | $\underline{4.37}_{abd}$ | 0.84 | $2.70_{abc}$ | 1.39 | 91.93*** |
| 7. ...get their work done on time? | $\underline{4.55}_{bd}$ | 0.70 | $\underline{2.48}_{ac}$ | 1.19 | $\underline{4.53}_{bd}$ | 0.68 | $2.80_{ac}$ | 1.31 | 80.16*** |
| 8. ...try hard to understand things? | $\underline{4.63}_{bd}$ | 0.58 | $2.75_{acd}$ | 1.34 | $\underline{4.62}_{bd}$ | 0.64 | $3.12_{abc}$ | 1.37 | 68.91*** |

Note. The stem for educational consequence questions is "would they be the sort of student who would" and the stem for life consequence questions is "Would they be the sort of person who would". Abbreviated versions of questions are presented here. See the Interview subsection of the Method section for examples of complete questions. Children indicated the exten to which they agreed or disagreed with the questions on a 5-point Likert type scale (i.e., (1) big NO, indicating strong disagreement; (2) little no, indicating disagreement; (3) ?, indicating uncertainty; (4) little yes, indicating agreement; and (5) big YES, indicating strong agreement). Subscripted letters differ significantly ($p < .05$) from the means of the corresponding type of interpersonal interaction for the same question. There were significant main effects for grade on three questions and a significant main effect for grade by type on one question. These effects are discussed under the Results section. There were no other significant main or interaction effects. *$p < .05$; **$p < .01$; ***$p < .001$. Underlined means differ significantly ($p < .05$) from the midpoint of the scale.